User's Manual

MFB-Series

SFP Fast Ethernet Module

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC

Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at whose own expense.

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This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

WEEE Warning

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

PLANET Fast Ethernet SFP Module User's Manual

FOR MODELS: MFB-FX / MFB-F20 / MFB-F40 / MFB-F60 / MFB-FA20 / MFB-FB20

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1. OVERVIEW

Thank you for purchasing PLANET MFB family SFP 100Base-FX Fast Ethernet module. The MFB family SFP Fast Ethernet module can install into PLANET Switch products with 100Base-FX SFP interface. The distance can be extended from 2km (MM) up to 60 kilometers (Single-mode, LC).

2. MODEL LIST

Your MFB family SFP Fast Ethernet module comes with one of the following models.

Fast Ethernet SFP module List		
Model	**Interface**	**Fiber connector and distance**
MFB-FX	SFP-Port 100Base-FX Module	LC, Multi-Mode (1310nm) -2km
MFB-F20	SFP-Port 100Base-FX Module	LC, Single Mode (1310nm) – 20km
MFB-F40	SFP-Port 100Base-FX Module	LC, Single Mode (1310nm) – 40km
MFB-F60	SFP-Port 100Base-FX Module	LC, Single Mode (1310nm) – 60km
MFB-FA20	SFP-Port 100Base-BX Module	LC WDM, Single Mode (TX:1310nm, RX:1550nm) -20km
MFB-FB20	SFP-Port 100Base-BX Module	LC WDM, Single Mode (TX:1550nm, RX:1310nm) -20km

* Models with last two numbered characters indicate the maximum distance in km.

3. CHECK LIST

Your MFB carton should contain the following items:

- The MFB family SFP Fast Ethernet module
- This user's manual

If any item is missing or damaged, please consult the dealer from whom you purchased you MFB family SFP Fast Ethernet module.

4. INTRODUCTION

4-1 1-Port 100Base-FX SFP Modules – MFB-FX / MFB-F20 / MFB-F40 / MFB-F60

Features:

- Comply with IEEE 802.3u Fast Ethernet standard
- 1 x 100Mbps fiber port
- Plug and Play Installation
- MFB-FX provides distance up to 2km over 62.5/125μm multi-mode fiber cable
- MFB-F20 provides distance up to 20km over 9/125μm single mode fiber cable
- MFB-F40 provides distance up to 40km over 9/125μm single mode fiber cable
- MFB-F60 provides distance up to 60km over 9/125μm single mode fiber cable

4-2 1-Port 100Base-BX WDM SFP Modules – MFB-FA20 / MFB-FB20

Features:

- Comply with IEEE 802.3u Fast Ethernet standard
- 1 x 100Mbps fiber port (Single LC fiber connectors)
- Plug and Play Installation
- MFB-FA20 provides distance up to 20km over 9/125μm single mode fiber cable
- MFB-FB20 provides distance up to 20km over 9/125μm single mode fiber cable

5. Installing SFP Modules

5.1 Installing the SFP transceiver

The sections describe how to insert an SFP transceiver into an SFP slot.

The SFP transceivers are hot-pluggable and hot-swappable. You can plug-in and out the transceiver to/from any SFP port without having to power down the Switch/Media Converter. As the Figure -1 appears.

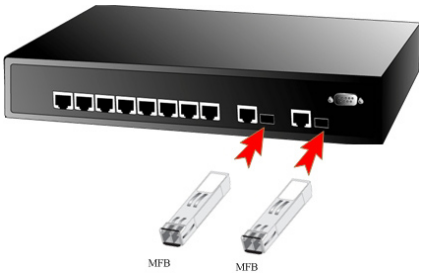

Figure 1 Plug-in the SFP transceiver

Before connect the other switches, workstation or Media Converter.

1. Make sure both side of the SFP transceiver are with the same media type or WDM pair, for example: 100Base-FX to 100Base-FX, 100Base-BX20-U to 100Base-BX20-D.
2. Check the fiber-optic cable type match the SFP transceiver model.
   - To connect to **MFB-FX** SFP transceiver, use the multi-mode fiber cable- with one side must be male duplex LC connector type.

- To connect to **MFB-F20/F40/F60/FA20/FB20** SFP transceiver, use the **single-mode** fiber cable-with one side must be male duplex LC connector type.

Connect the fiber cable

1. Attach the duplex LC connector on the network cable into the SFP transceiver.
2. Connect the other end of the cable to a device – switches with SFP installed, fiber NIC on a workstation or a Media Converter.
3. Check the LNK/ACT LED of the SFP slot of the switch / converter. Ensure that the SFP transceiver is operating correctly.
4. Check the Link mode of the SFP port if the link failed. Co works with some fiber-NICs or Media Converters, set the Link mode to "100 Force" is needed.

5.2 Remove the module

1. Make sure there is no network activity by consult or check with the network administrator. Or through the management interface of the switch/converter (if available) to disable the port in advance.
2. Remove the Fiber Optic Cable gently.
3. Turn the handle of the MFB module to horizontal.
4. Pull out the module gently through the handle.

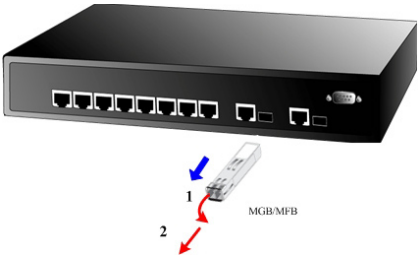

Figure-2 Pull Out the SFP transceiver

Caution	Never pull out the module without pull the handle or the push bolts on the module. Direct pull out the module with violent could damage the module and SFP module slot of the device.

APPENDIX A

A.1 Fiber Optical Cable Connection Parameters

The wiring details are as below:

- Fiber Optical patch Cables:

Standard	Fiber Type	Cable Specification
100Base-FX (1310nm)	Multi-mode	50/125μm or 62.5/125μm
100Base-FX (1310nm)	Multi-mode	50/125μm or 62.5/125μm
	Single-mode	9/125μm
100Base-BX-U (TX:1310/RX:1550) 100Base-BX-D (TX:1550/RX:1310)	Single-mode	9/125μm